Nutrim Enhances Foods' Nutritional Value

Nutrim, a food ingredient made from barley and oat bran, may contribute to a healthier diet for some people.

Developed by George E. Inglett, an Agricultural Research Service chemist at the National Center for Agricultural Utilization Research in Peoria, Illinois, Nutrim is made from the layer of cells between the plant seed cover and germ.

This new food additive product comes on the heels of Inglett's two other previously developed food ingredients, Oatrim and Z-trim. Oatrim, made from enzyme-treated oats and barley, has the qualities of shortening and is used as a fat-replacer in baked foods. Z-trim is an insoluble fiber gel prepared from high-fiber agricultural products like corn and oat hulls. Added to brownies, cakes, and other baked goods, it lowers calories without affecting taste or texture.

As a food ingredient, Nutrim's main nutritional advantage is that it's rich in beta glucan, a soluble gum found in oats and barley. Beta glucan has been shown to lower cholesterol in certain people, when eaten in the right proportions in a low-fat diet.

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Already noted for developing Oatrim and Z-trim, ARS chemist George Inglett has come up with another healthful food ingredient—Nutrim (bowl in foreground).

The Food and Drug Administration recently approved new regulations allowing food companies to claim health benefits from both oatmeal and oat bran in diets that contain at least 3 grams of beta glucan per day. Inglett designed Nutrim to meet these FDA rules.

It's considered to be a phytonutrient because it is derived from a plant source, has nutritional value, and lowers cholesterol. Phytonutrient food ingredients are a growing segment of the food industry.

Nutrim is also more cost effective for food ingredient makers and food processors who use oat-based fat substitutes in their products; it costs about half as much as alternative ingredients.

Inglett made Nutrim by cooking oats and barley flour in a process that separates the smooth soluble fiber from the coarse fibers. The liquid slurry is then dried and ground into a powder. Nutrim is a mixture of beta glucan and starches. When mixed with water, it flows like a heavy dairy cream or coconut cream, Inglett says. Nutrim can be used in baked goods, salad dressings, sauces, and ice cream.

And, Inglett says, Nutrim may have potential as a nonfood product. He's investigating its feasibility as a cosmetic ingredient.

"Nutrim flows very smoothly and is very soothing to the skin. Also, fewer people are allergic to oats than to other foods, making it a good candidate for a plant-based cosmetic line."—By **Dawn Lyons-Johnson,** ARS.

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